

CLAIMS

We claim:

1. A process comprising:

- (a) manufacturing a shell from fibrous refractory material, wherein the shell includes an interior area and an opening;
- (b) inserting a fluxing material suitable for use in casting molten metal through the opening and into the interior area of the shell;
- (c) securing the fluxing material to the shell.

2. The process of claim 1 and further comprising:

- (d) exposing the shell with the fluxing material therein to molten metal, wherein the fluxing material adjacent the opening is exposed to the molten metal.

3. The process of claim 2 wherein (d) includes inserting the shell with the fluxing material therein into a casting mold containing molten metal.

4. The process of claim 2 and prior to (d), further comprising the step of inserting the shell with the fluxing material therein into a casting mold.
5. The process of claim 2 wherein (d) includes exposing only the fluxing material adjacent the opening to the molten metal.
5. The process of claim 1 wherein the shell comprises a porous fibrous refractory material, and wherein step (a) includes manufacturing the shell from porous fibrous refractory material.
7. The process of claim 1 wherein the shell comprises a ceramic fibrous refractory material, and wherein step (a) includes manufacturing the shell from ceramic fibrous refractory material.
8. The process of claim 1 wherein the shell comprises a heat insulating fibrous refractory material, and wherein step (a) includes manufacturing the shell from heat insulating fibrous refractory material.
9. The process of claim 1 wherein step (c) includes integrally connecting the fluxing material to the shell.

10. The process of claim 1 wherein step (c) includes fusing the fluxing material to the shell.

11. The process of claim 10 wherein the shell comprises a porous fibrous refractory material, wherein step (b) includes inserting at least a portion of the fluxing material into pores of the shell, and wherein step (c) includes fusing fluxing material in the pores of the shell.

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12. The process of claim 1 and further comprising:

(d) exposing the shell with the fluxing material therein to molten metal for at least a predetermined time period, wherein substantially all of the fluxing material is released from the shell to the molten metal during the predetermined time period.

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